Permit Amendment
Source Analysis & Technical Review

Company	**Building Materials Corporation of America**	Permit Number	**7711A**
City	**Dallas**	Project Number	**183376**
County	**Dallas**	Account Number	**DB-0378-S**
Project Type	**Amend**	Regulated Entity Number	**RN100788959**
Project Reviewer	**Mr. Joel Stanford**	Customer Reference Number	**CN602717464**
Site Name	**Asphalt Roofing Production Facility**		

Project Overview

The company has proposed an amendment of their permit in order to authorize the replacement of the burner associated with the Standby Boiler (Emission Point Number [EPN] BLR5) with a larger unit and to increase its annual hours of operation from to 2,280 hours per year to allow for continual operation (8,760 hours per year). Conditions relating to Compliance Assurance Monitoring and requiring the use of baghouses or dust collectors on some sources have also been included. Special Conditions relating to opacity and visible emissions have been updated with current language.

The company also requests the inclusion of the representation of startup and shutdown emissions. Language in Special Condition number one and a new footnote (7) on the Maximum Allowable Emission Rates Table have been added to the permit. Maintenance activities will be authorized either under Permit by Rule or claimed under 30 Texas Administrative Code § 116.119, De Minimis Facilities or Sources. Emissions from planned startup and shutdown activities will be authorized by this permit.

Emission Summary

Air Contaminant	Current Allowable Emission Rates (tpy)	Proposed Allowable Emission Rates (tpy)	Change in Allowable Emission Rates (tpy)
PM	103.84	104.47	+0.63
PM_{10}	103.84	104.47	+0.63
$PM_{2.5}$	--	104.47	*104.47
VOC	47.48	47.91	+0.43
NO_X	17.32	20.01	+2.69
CO	60.91	67.74	+6.83
SO_2	128.67	128.7	+0.03

*The proposed Maximum Allowable Emission Rates Table (MAERT) includes $PM_{2.5}$ emissions that were evaluated and authorized in a past permitting action but were not previously included on the MAERT.

Public Notice Information - 30 TAC Chapter 39 Rules

Rule Citation	Requirement	
39.403	Is Public Notice Required?	**No**
	If no, give reason:	**The proposed emission increases are below public notice thresholds.**

Construction Permit & Amendment Requirements - 30 TAC Chapter 116 Rules

Rule Citation	Requirement	
116.111(a)(2)(G)	Is the facility expected to perform as represented in the application?	**Yes**
116.111(a)(2)(A)(i)	Are emissions from this facility expected to comply with all TCEQ air quality Rules & Regulations, and the intent of the Texas Clean Air Act?	**Yes**
116.111(a)(2)(B)	Emissions will be measured using the following method:	**Recordkeeping**

	Comments on emission verification:	**Records are required to indicate proper operation of control equipment, throughputs, and production rates.**
116.111(a)(2)(D)	Subject to NSPS?	**Yes**
	Subparts **A, Dc, & UU**	
116.111(a)(2)(E)	Subject to NESHAP?	**No NESHAP applies due to the facility not emitting any air contaminants regulated under 40 CFR 61.**
116.111(a)(2)(F)	Subject to NESHAP (MACT) for source categories?	**Yes**
	Subparts **A & AAAAAAA**	
116.111(a)(2)(H)	Is nonattainment review required?	**No**
	Is the site located in a nonattainment area?	**Yes**
	Is the site a federal major source for a nonattainment pollutant?	**Yes**
	Is the project a federal major source for a nonattainment pollutant by itself?	**No**
	Is the project a federal major modification for a nonattainment pollutant?	**No**
116.111(a)(2)(I)	Is PSD applicable?	**No**
	Is the site a federal major source (100/250 tons/yr)?	**No**
	Is the project a federal major source by itself?	**No**
	Is the project a federal major modification?	**No**
116.111(a)(2)(L)	Is Mass Emissions Cap and Trade applicable to the new or modified facilities?	**No**
	If yes, did the proposed facility, group of facilities, or account obtain allowances to operate:	**No**
116.140 - 141	Permit Fee: **$900.00** Fee certification:	**PI00116151**

Title V Applicability - 30 TAC Chapter 122 Rules

Rule Citation	Requirement	
122.10(13)(A)	Is the site a major source under FCAA Section 112(b)?	**No**
	Does the site emit 10 tons or more of any single HAP?	**No**
	Does the site emit 25 tons or more of a combination?	**No**
122.10(13)(C)	Does the site emit 100 tons or more of any air pollutant?	**Yes. The facility operates under Title V Operating Permit Number O-2771 and will revise its SOP as necessary**
122.10(13)(D)	Is the site a non-attainment major source?	**No**
122.602	**Periodic Monitoring (PM) applicability:** The company is required to monitor temperature of the incinerator with an averaging period of one hour, and to monitor visible emissions once per week of blowing stills, of storage tanks, and of mineral handling and storage facilities.	
122.604	**Compliance Assurance Monitoring (CAM) applicability:** CAM applies to both the Thermal Oxidizer (direct-flame incinerator) (EPN 8/8A) and the Coalescing Filter Mist Elimination Systems (EPN CFL/34). CAM is achieved through following NESHAP (MACT) AAAAAAA requirements. Temperature monitoring as required by the MACT is required by Special Condition 13 at a 1 hour interval as opposed to the 3 hours interval specified in AAAAAAA. The Coalescing Filter Mist Elimination System is required to follow the operating range as specified in 40 Code of Federal Regulations (40 CFR) § 63.11562(a)(2) and (b)(3). The 3-hour average pressure drop across the device is required to fall within the approved operating range established as specified in 40 CFR § 63.11562(a)(2) and (b)(3).	

Request for Comments

Received From	Program/Area Name	Reviewed By	Comments
Region:	**4**	**Ms. Marilyn Fitzner**	**No Objections**
City:	**Dallas**	**Mr. Brian Cunningham**	**No Objections**

Process/Project Description

The plant manufactures asphalt shingles for the roofing industry. A dry, nonwoven fiberglass mat is fed into the roofing machine from an unwind stand. The fiberglass is carried through the coating section where coating asphalt mixed with a stabilizer (limestone) is applied to both surfaces of the mat. The coating operation is followed by the surfacing section. Ceramic colored granules are blended and dropped in proper sequence onto the coated web and embedded. The back surface of the sheet is sprinkled with sand to prevent it from adhering to rolls and itself in the finished package. The hot sheet, with a mineralized surface, then goes into the cooling section of the machine. Cooling is accomplished by passing the web over a series of water-cooled drums, through water mist sprays and between air jets. It is then accumulated in the looper section of the machine to provide surge capacity required prior to cutting. Self-seal striping dots are then applied and the sheet is cut into shingles and automatically packaged. The boiler accepts the thermal oxidizer exhaust gas for preheating recovery and fires as necessary to meet the steam needs of the plant.

Pollution Prevention, Sources, Controls and BACT- [30 TAC 116.111(a)(2)(C)]

Emissions at the facility are due to heaters, the boiler and the standby boiler, all storage and process tanks, blowing stills, and all loading and unloading operations associated with trucks and railcars.

The Standby Boiler affected by the amendment (EPN BLR5) will be rated at 19 Million British Thermal units/hour (MMBtu/hr) and does not require any additional control technologies or emission limits. The unit utilizes a low NO_x burner (with a manufacturer represented 30 parts per million rating) and will meet BACT.

Emissions from the blowing stills, loading racks, and storage tanks vent to a thermal oxidizer (direct-flame incinerator). The thermal incinerator has a destruction efficiency of 95 percent for PM/PM_{10}, H_2S, CO, and VOC.

Emissions from stabilizer storage, stabilizer heaters, the line 1 stabilizer use bin, and sand application are vented to baghouses. Emissions from the line 1 surfacing section are vented to dust collectors. These control units have a capture efficiency of at least 99%.

No abatement device or method was listed for capture and reduction of SO_2 from the listed facilities at the site. All permitted facilities will meet BACT criteria for asphalt processing and asphalt roofing manufacturing facilities.

Startup and shutdown emissions are virtually indistinguishable from production emissions. Although there may be minor emissions associated with startup and shutdown, emission factors used to quantify production emissions are considered to have enough conservatism to include any incidental increases that may be attributed to startup and shutdown. In addition, emissions from planned startup and shutdown of combustion units should not result in any quantifiable hourly emissions change for products of combustion. Although there may be transitional and incidental spikes before units stabilize during startups (5 to 15 minutes), overall products of combustion are expected to be within hourly range limits for normal loads during production operations.

Impacts Evaluation - 30 TAC 116.111(a)(2)(J)

Was modeling conducted? **Yes** Type of Modeling: **AERMOD**	
Will GLC of any air contaminant cause violation of NAAQS?	**No**
Is this a sensitive location with respect to nuisance?	**Moderate**
[§116.111(a)(2)(A)(ii)] Is the site within 3000 feet of any school?	**Yes**
Additional site/land use information:	
According to a site review by the regional office, the surrounding area is a mix of residential and industrial. The closest receptor is a business located 250 feet away. The closest property line is 200 feet away. There are three schools nearby, a middle school located 1,600 feet away, a high school 2,500 feet away, and an elementary school 2,900 feet away.	

Summary of Modeling Results

Modeling was performed for the project-related increases of criteria pollutants. The results were reviewed by the TCEQ Air Dispersion Modeling Team and determined to be acceptable. The results were projected to be below de-minimis thresholds and are as follows:

Table 1. Project-Related Modeling Results for State Property Line

Pollutant	Averaging Time	GLCmax (µg/m^3)	De Minimis (µg/m^3)
SO_2	1-hr	0.5	20.4

Table 2. Modeling Results for Minor NSR De Minimis

Pollutant	Averaging Time	GLCmax (µg/m^3)	De Minimis (µg/m^3)
SO_2	1-hr	0.5	7.8
SO_2	3-hr	0.3	25
SO_2	24-hr	0.1	5
SO_2	Annual	0.01	1
PM_{10}	24-hr	1.17	5
$PM_{2.5}$	24-hr	1.17	1.2
$PM_{2.5}$	Annual	0.22	0.3
NO_2	1-hr	1.7	7.5
NO_2	Annual	0.7	1
CO	1-hr	57	2000
CO	8-hr	26	500

The GLCmax are the maximum predicted concentrations associated with one year of meteorological data.

The justification for selecting the EPA's interim 1-hr NO2 and 1-hr SO2 De Minimis levels was based on the assumptions underlying EPA's development of the 1-hr NO2 and 1-hr SO2 De Minimis levels. As explained in EPA guidance memoranda, the EPA believes it is reasonable as an interim approach to use a De Minimis Level that represents 4% of the 1-hr NO2 and 1-hr SO2 NAAQS.

Permit Concurrence and Related Authorization Actions

Is the applicant in agreement with special conditions?	**Yes, 05/24/13**
Company representative(s):	**Ms. Latha Kambham**
Contacted Via:	**E-mail**
Date of contact:	**05/24/13**
Other permit(s) or permits by rule affected by this action:	**No**

Project Reviewer Date Team Leader/Section Manager/Backup Date